Arney Docket: T2147-906626 Client Docket: US 3822/JPL

-creating a nomenclature of the predicates from the analysis of the field of records;

-numerically encoding the predicates in accordance with the nomenclature created; and

-presenting the encoded predicates in the form of numeric values in one or more second data tables of numeric values.

- 36. (New) The method according to claim 35, wherein the nomenclature comprises an association relationship between the predicates and the numeric values, and wherein the step of encoding consists of replacing the predicates with the associated numeric values.
- 37. (New) The method according to claim 35, characterized in that the step of encoding compacts the second data tables vis-à-vis the first data tables.
- 38. (New) The method according to claim 35, further comprising the step of installing a copy of the second data tables in a machine having vectorial capability for processing the encoded predicates in accordance with a query served by the decision application server.
- 39. (New) The method according to claim 36, further comprising the step of installing a copy of the second data tables in a machine having vectorial capability for processing the encoded predicates in accordance with a query served by the decision application server.



Amerney Docket: T2147-906626 Client Docket: US 3822/JPL

40. (New) The method according to claim 37, further comprising the step of installing a copy of the second data tables in a machine having vectorial capability for processing the encoded predicates in accordance with a query served by the decision application server.

41. (New) A method for searching records in at least one first data table in response to a given query from a decision application server, the first data table having plain-text data, the method comprising the steps of:

-receiving the given query having plain-text predicates for searching records in the first table,

-transforming the given query, in accordance with a nomenclature, into an encoded query having numerically encoded predicates,

-processing the encoded query in connection with at least one second data table, the second data table having numerical data.

42. (New) The method of claim 41, wherein the step of transforming consists of
-translating each of the plaintext predicates of the given query into at least one
vector representing values to be found in the second data table.

43. (New) The method of claim 42, wherein the step of processing consists of -comparing each vector to all lines of the second data table, column by column;

-saving an associated line number for each coincidence; and



A ney Docket: T2147-906626 Client Docket: US 3822/JPL

-returning, for each saved line number, a record of the second data table corresponding to the line number, the returned record comprising at least one vector.

- 44. (New) The method of claim 43, further comprising the step of translating, in accordance with the nomenclature, each vector of the returned record into a plain-text predicate.
- 45. (New) The method of claim 41, further comprising the step of expressing a result from the processing step in statistical form in response to the given query.
- 46. (New) The method of claim 38, wherein the machine with vectorial capability is a supercomputer.
- 47. (New) A search system having a decision application server comprising a relational database containing a set of target records, a search engine coupled with the decision application server, the search engine being activated by a query for selecting records from the set of target records based on a given criteria sent by the decision application server, the search engine comprising a module for preconditioning data intended for the relational database and installing an encoded table corresponding to the relational database in a machine with vectorial capabilities, the module further comprising:

-means for reading a file having data intended for the relational database;
-means for building a nomenclature for the data contained in the file; and
-means for encoding the data in accordance with the nomenclature to produce
the encoded table; and

rney Docket: T2147-906626 Client Docket: US 3822/JPL

the search engine further comprising:

-means for analyzing the query sent by the decision application server; and
-means for encoding the query, in accordance with the nomenclature, into an
encoded query in the form of an input file usable by the machine with
vectorial capabilities, the encoded query comprising at least one vector.

- 48. (New) The system according to claim 47, wherein the search engine further comprises means for receiving the input file, searching the encoded table in accordance with the vector of the input file, and producing a result of the search in the form of an output file.
- 49. (New) The system according to claim 48, further comprising a means for extracting in plain-text the target records from the relational database corresponding to the output file produced by the machine with vectorial capabilities.
- 50. (New) The system according to claim 49, wherein the means for extracting is installed in the decision application server.
- 51. (New) The system according to claim 47, further comprising a management agent that monitors the activity of the machine with vectorial capabilities, handles abnormalities, and activates search means in the machine with vectorial capabilities.
- 52. (New) The system according to claim 47, wherein the search engine further comprises the machine with vectorial capabilities.

B1